

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ULRICH BUHLER

Appeal No. 2001-0600
Application No. 08/584,776

ON BRIEF

Before WILLIAM F. SMITH, KIMLIN and POTEATE, Administrative Patent Judges.

POTEATE, Administrative Patent Judge.

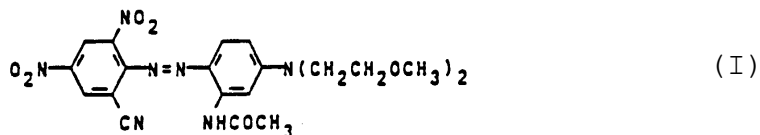
DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 1-18, which are all of the claims in the application.

Claims 1 and 2 are representative of the subject matter on appeal and are reproduced below:

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1. β modification of the dye of the formula I



having an X-ray diffraction pattern (Cu K_{α} , radiation) containing lines at the following diffraction angles $2\theta(^{\circ})$:

high intensity lines: 7.15, 10.25, 25.9,

medium-intensity lines: 16.9, 19.5, 20.1
21.85, 22.65, 23.4,
25.2, 28.5, 32.45.

2. A process for preparing the β modification of the dye of the formula I according to claim 1, comprising heating the dye which is not present in the β modification in an aqueous phase at temperatures from about 70 to about 150°C.

The references relied upon by the examiner are:

von Rambach et al. (Rambach)	3,956,270	May 11, 1976
Koller et al. (Koller)	4,327,999	May 04, 1982
Eugster et al. (Eugster)	4,329,144	May 11, 1982
Sommer et al. (Sommer)	4,460,375	Jul. 17, 1984
Hashimoto et al. (Hashimoto)	4,536,569	Aug. 20, 1985

Grounds of Rejection

1. Claim 1 stands rejected under 35 U.S.C. § 103 as unpatentable over the admitted state of the art as recited on page 1, lines 18-31 of the specification and further in view of Rambach, Koller, Eugster, Sommer or Hashimoto.

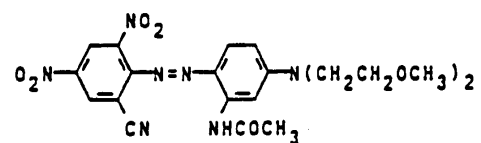
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2. Claims 2-18 stand rejected under 35 U.S.C. § 103 as unpatentable over the admitted state of the art as applied to claim 1 and further in view of Rambach, Koller, Eugster, Sommer or Hashimoto.¹

We reverse as to both grounds of rejection.

Background

The invention relates to a crystal modification (β modification) of a known dye having the formula



Specification, page 1.

Various crystal modifications of this known dye are disclosed in JP '931 and EP' 161. Specification, page 1, lines 18-20 and 27-28. According to appellants, these known modifications are unstable and also exhibit various technical defects, particularly during handling. See *id.*, page 2, lines 10-14. Appellant has found that the β -modification of the dye

¹ The examiner's statement of the rejection further includes Optiz, Buhler and Veb I or II as secondary references. See Examiner's answer, paper no. 15, mailed January 21, 1998, page 6. The rejection of the claims based on these references has, however, been withdrawn. See Final rejection, paper no. 6, mailed April 23, 1997; Examiner's answer, page 2, paragraph (6) (indicating that appellant's statement of the issues in the Appeal brief, paper no. 15, received November 28, 1997, is correct).

"allows higher space-time yields to be achieved when preparing powder preparations and dyeings." Appeal brief, page 4, second paragraph (citing specification, page 2, lines 21-27 ("[t]he β -modified dye is superior to the α -modified dye")). Appellant has discovered that the β modification of the dye may be obtained by heating the α modification of the dye (as taught by JP '931 and EP '161) in an aqueous phase to temperatures of 70 to 150°C. See Specification, page 2, lines 28-30.

Discussion

The initial burden of presenting a prima facie case of obviousness rests on the examiner. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). In order to establish a prima facie case of obviousness, the examiner must identify a suggestion or motivation to modify the teachings of the cited references to achieve the claimed invention. In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000). The evidence of a suggestion, teaching, or motivation to modify a reference may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art or from the nature of the problem to be solved. Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). "[A] rejection cannot be predicated

on the mere identification . . . of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." Ecolochem, Inc. v. Southern California Edison Co., 227 F.3d 1361, 1375, 56 USPQ2d 1065, 1076 (Fed. Cir. 2000) (quoting Kotzab, 217 F.3d at 1371, 55 USPQ2d at 1317).

According to the examiner, it would have been obvious to one of ordinary skill in the art at the time of the invention to have prepared the β modification of the dye disclosed in the admitted prior art (specification, page 1, lines 18-31) in view of the teachings in the secondary references. In particular, the examiner maintains that the secondary references teach that in dispersed dyes, different crystal modifications can be expected and that the more stable modification, i.e., the one giving the best dying properties, is usually designated as the β modification. See Examiner's answer, page 4. The examiner also concludes that it would have been obvious to have prepared the β modification using the processes of claims 2-18 since these processes are taught in the prior art and "structurally similar dyes would be expected to be dyes and dyes substrates with like

dyeings." Examiner's answer, page 6.

In determining the patentability of claims, the Federal Circuit requires that the Board insure that the requisite findings are made based on the evidence of record. See In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1432-33 (Fed. Cir. 2002). The Board must set forth its findings and the grounds thereof as supported by the agency record and explain its application of the law to the facts. Id. The Board's decision must be supported by substantial evidence. In re Zurko, 258 F.3d 1379, 1381, 59 USPQ2d 1693, 1694 (Fed. Cir. 2001).

In the present case, the examiner has simply failed to provide sufficient evidence in support of his position. Accordingly, we are constrained to reverse the examiner's prior art rejections for failure to establish a prima facie case of obviousness. In particular, we find that the record is devoid of evidence to support the following conclusions reached by the examiner in rejecting the claims.

In rejecting the claims, the examiner takes the position that it is generally known that the β modification of azo dyes is a more stable crystal modification. See Examiner's answer, page 4. We do not agree that the secondary references necessarily support this proposition. Koller, Sommer, and

Rambach teach that the β modifications of dyes having the specific formulas disclosed therein are more stable than their known α modifications. However, none of these three references teach that, in general, the β modification of a dye is more stable than the α modification. In fact, Rambach teaches that the β modification of the dyes disclosed therein is "surprisingly" more stable. Abstract.

Eugster discloses an ϵ -modified azo dye which is stable to dyeing. Abstract. As pointed out by appellant, Hashimoto does not indicate whether the disclosed dye is in α or β form, a point which the examiner fails to address. See Appeal brief, page 15, first paragraph. Thus, contrary to the examiner's contention, neither Eugster nor Hashimoto support the general proposition that the β form of an azo dye is more stable.

The examiner's rejection also assumes that it is routine in the art to convert the α modification of an azo dye into the β modification, and that the manner of converting is known. See Examiner's answer, page 6. However, the examiner fails to identify any support in the references for this conclusion. See In re Thrift, 298 F.3d 1357, 1364, 63 USPQ2d 2002-2006 (Fed. Cir. 2002) (quoting Lee, 277 F.3d at 1344-45, 61 USPQ2d at 1435) (reliance on "common knowledge and common sense" do not fulfill

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the requirement to provide reasons in support of the findings of obviousness"). In this regard, the examiner relies on his conclusion that the dyes of the secondary references are structurally similar to the dye of the admitted prior art. The examiner has not, however, established sufficient similarity between the dyes to support this conclusion. Appellant's brief identifies numerous differences between the dye having the formula disclosed on page 1 of the specification and those of the secondary references. See Appeal brief, pages 9-15. The examiner has failed to address these differences.

At best, the examiner has established that it might have been obvious to have tried to synthesize the β modification of the admitted prior art dye. See In re Merck & Co., Inc., 800 F.2d 1091, 1097, 231 USPQ 375, 379 (Fed. Cir. 1986) (citation omitted) ("[O]bvious to try is not the standard of 35 U.S.C. § 103.") Thus, we are in agreement with appellant that the examiner's rejections are based on improper hindsight reconstruction (Appeal brief, page 16). See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("[T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.")

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Having concluded that the examiner has failed to establish a prima facie case of obviousness, we need not consider appellant's evidence of unexpected results (see Appeal brief, page 17).

REVERSED

WILLIAM F. SMITH)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
EDWARD C. KIMLIN)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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